

# Top End regional climate update: December 2025

This update provides information on water use in the 2025-26 water year to date, and an outlook for the forthcoming water year for the Top End water resources.

## Looking back

### 2025 Announced allocation outcomes

In April 2025 the Controller of Water Resources announced 100% allocations for all water resources in the Top End. This announcement was informed using modelling to predict river flows at specified locations at the end of the 2025 dry season. Modelling incorporated reported water use data provided by licence holders, water resource storage levels, and climate data up to 31 March 2025. Modelling assumed 100% of licence entitlements and allocations for stock and domestic use would be taken during the 2025-26 water accounting year.

- ✓ Environmental flow thresholds were exceeded at all sites during the 2025 dry season. The department set minimum environmental flow thresholds, which correspond to the ecological functioning of the water resources for sites at Wilden (1.6 m<sup>3</sup>/s), Dorisvale (6 m<sup>3</sup>/s), Theyona (12 m<sup>3</sup>/s) and Mount Nancar (12 m<sup>3</sup>/s).
- ✓ Both modelled predicted flows and actual measured flows exceeded the minimum environmental flow thresholds at all sites during the 2025 dry season.
- ✓ With the exception of Eley Homestead, the measured river flows were more than the modelled predicted flows at all locations.

Results indicate that predictive modelling is protective of environmental flows and is relatively conservative. The difference between the measured and modelled environmental flows is likely due to actual extractions during the water accounting year being significantly less than the maximum licensed entitlements used for the modelling scenarios, combined with rainfall that was not accounted for in the forecasted flows.

### 2025 Reported water use

Compared to the same period in 2024, licensed water extraction decreased in the Katherine, Ooloo and Mataranka water plan areas, as shown in Figure 1.

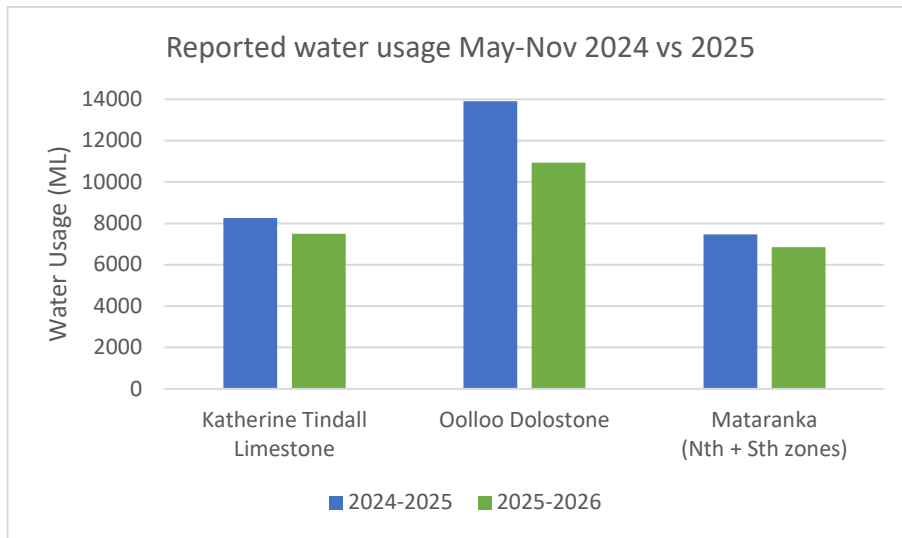


Figure 1. Comparison of reported 2025 reported water use to 2024 reported water use.

## Looking forward

Climate drivers and rainfall outlook information is sourced from the Bureau of Meteorology website. You can keep up to date with climate information by subscribing to the Bureau of Meteorology website at: <http://www.bom.gov.au/climate/outlooks/#/overview/influences>

## Climate drivers

Since July 2024, sea surface temperatures in the Australian region have been the warmest or second warmest on record for each respective month. Forecasts for December to February show warmer-than-average sea surface temperatures are likely around most of Australia. Warmer oceans can provide increased moisture and energy, that can enhance the severity of storms, cyclones and rain systems.

The sustained nature of increased global sea temperatures may disrupt the development and behaviour of climate indicators including the El Niño - Southern Oscillation and the Indian Ocean Dipole.

Observations in the tropical Pacific Ocean have been consistent with La Niña conditions since early October, typically bringing a wetter, more active wet season, with potentially an earlier onset and increased cyclone activity. The bureau's model currently predicts that tropical Pacific Ocean temperatures are likely to remain at La Niña levels until early 2026 before returning to neutral.

The negative Indian Ocean Dipole event remains active, increasing the probability of rainfall, but has been weakening steadily since early November. The bureau's model predicts a return to a neutral Indian Ocean Dipole in December. The neutral Indian Ocean Dipole has little influence on Australia's climate.

The Madden-Julian Oscillation is not discussed here as it is a periodic influence that acts as a climate booster, leading to enhanced rainfall under favourable conditions. As its presence is difficult to predict in the medium and long term it is not considered in this overview.

## Rainfall outlook

November saw the earliest cyclone to make landfall in Northern Territory, and the strongest to track within 100 km of Darwin, in the last 50 years, delivering 3 times the median November rainfall along coastal and Darwin rural areas. The increase in rainfall was not reflected further inland, with Katherine experiencing slightly below median November rainfall.

The Bureau of Meteorology climate outlook for the 2025-26 northern wet season predicts median rainfalls across the Top End between December and April, with slightly below median rainfall across the Territory in December, increasing to median rainfall from January.

The 3 month outlooks for both January to March (Figure 2) and February to April (Figure 3) is for median rainfall across the majority of the top end, with some inland areas expecting slightly below median rainfall.

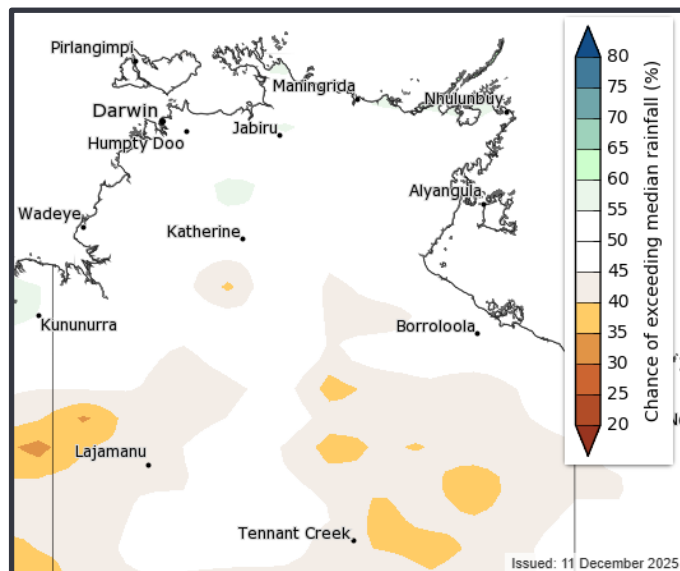
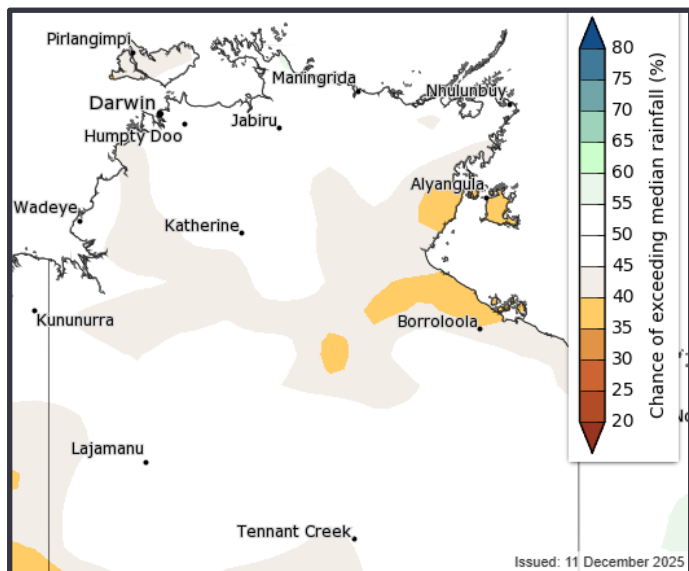


Figure 2. Chance of above median rainfall January to March      Figure 3. Chance of above median rainfall March to April  
 Source: <http://www.bom.gov.au/climate/outlooks/#/rainfall/median/seasonal/0>

Figures 4 and 5 show the median rainfall for both the January to March and February to April periods.

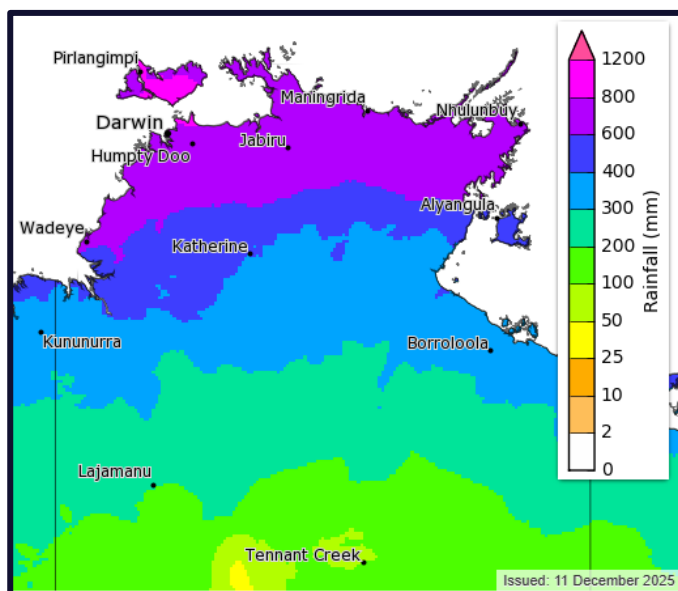
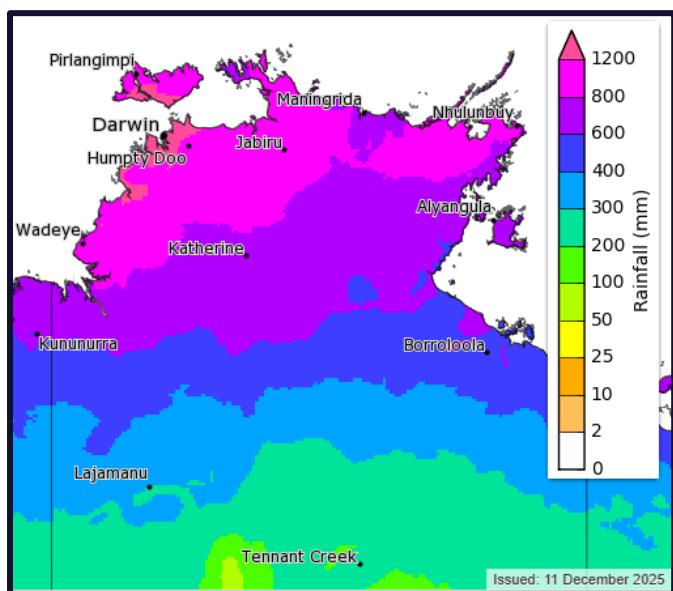


Figure 4. Median rainfall January to March)      Figure 5. Median rainfall February to April  
 Source: <http://www.bom.gov.au/climate/outlooks/#/rainfall/total/75/seasonal/0>

## Groundwater levels

Routine monitoring of groundwater levels for the water allocation plan areas have been completed for the end of the 2025 dry season. On average, groundwater levels across the region are generally similar to last year's annual averages, with some areas showing slight declines up to 0.15 m. The annual averages for comparison were calculated using data from 1 November 2024 to 31 October 2025.

The 2024-25 wet season (1 November to 30 April) provided a lower groundwater recharge opportunity compared with the 2023-24 wet season period. Average groundwater depths below ground level increased by 0.22 to 0.43 m in the Katherine and Oolloo selected bores, indicating reduced recharge, while levels at the selected groundwater bore in Mataranka remained similar to last year (Figures 6, 7 and 8 refers).

Although average groundwater levels at the selected bores during the 2024-25 wet season were similar or slightly lower than 2023-24, groundwater levels as at 1 November 2025 remain higher or within the average standing groundwater levels for the past 10 years.

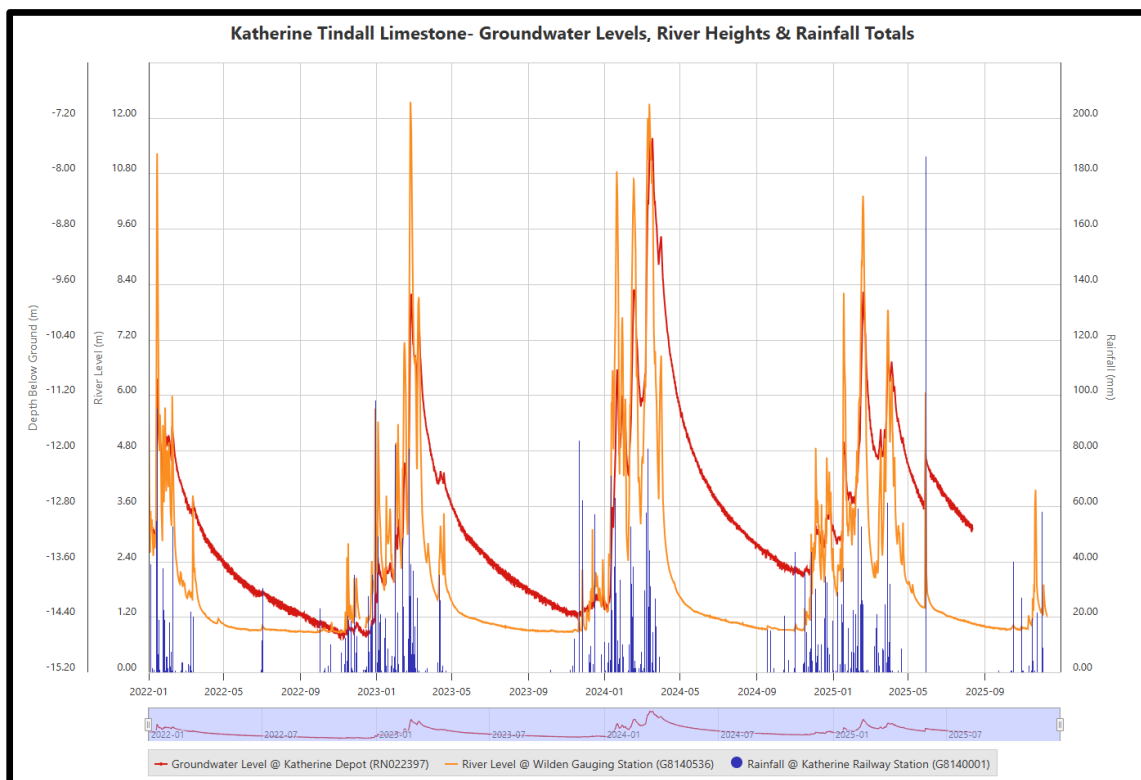


Figure 6. Groundwater level, river level and rainfall in Katherine water plan area

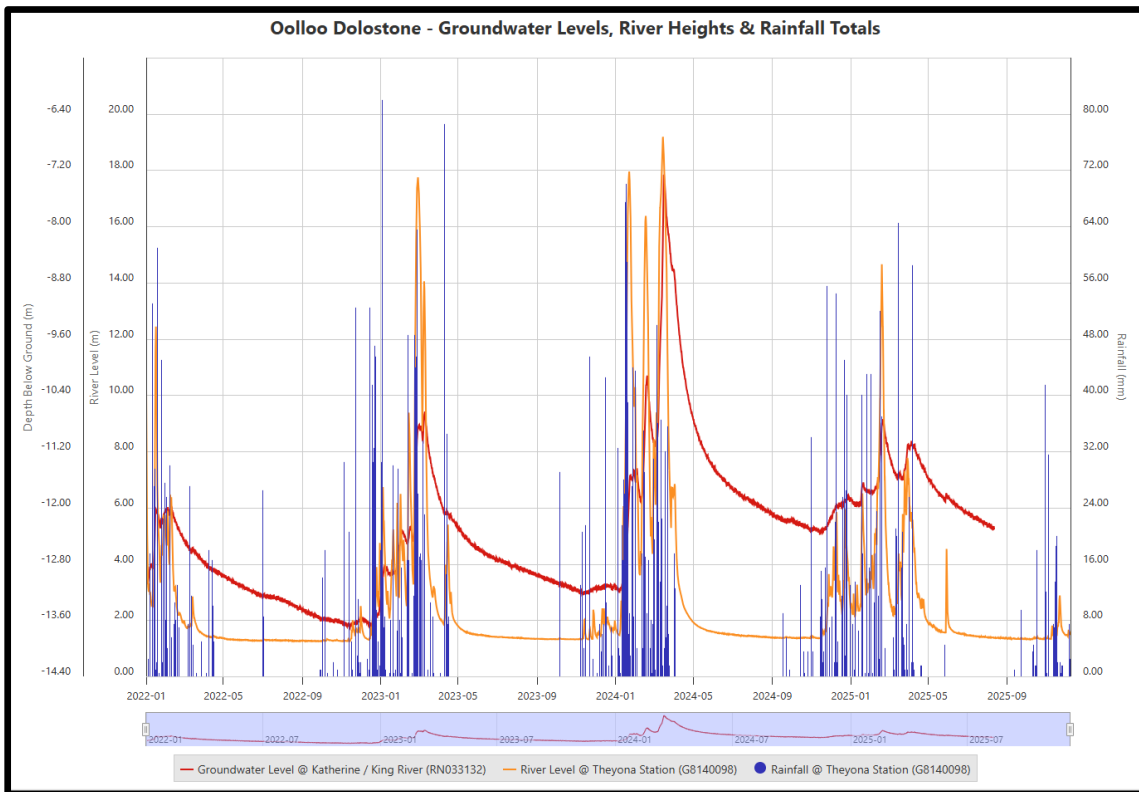


Figure 7. Groundwater level, river level and rainfall in the Oolloo water plan area

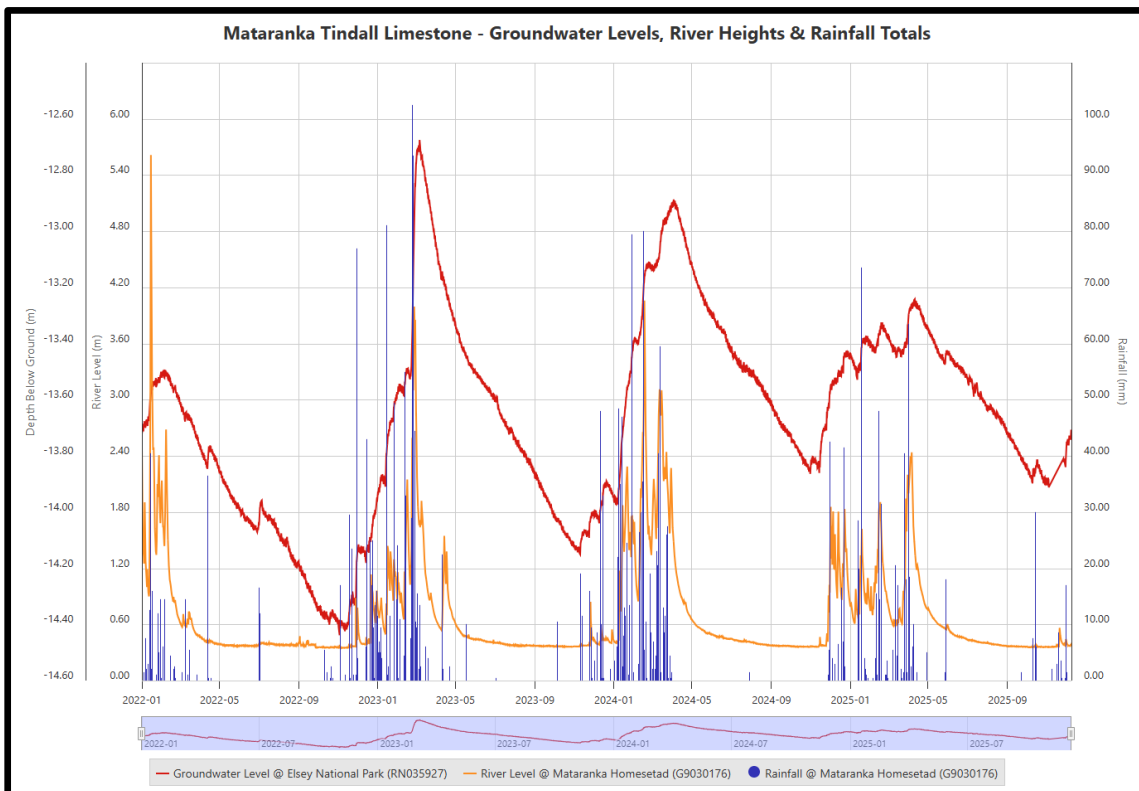


Figure 8. Groundwater level, river level and rainfall in the Mataranka area

## 2026 Announced allocation outlook

Based on the reported water use in the region, the climate and rainfall outlook, and the measured groundwater levels, it is likely allocations for the 2026-27 water accounting year will be 100% for all water resources in the Top End.

Modelling will be undertaken in February 2026 to inform an early notice to licence holders in February 2026. Final modelling using updated climate information, if required, will be undertaken in March and April 2026 to inform an allocation announcement.

The Controller of Water Resources will provide advice to relevant licence holders of their 2026-27 annual announced allocation before 1 May 2026.

## More information

Water allocation plans: <https://nt.gov.au/environment/water/management-security/water-plan/water-allocation-plans>

Water Licensing Portal: <https://nt.gov.au/environment/water/licensing/licence-and-notice-portals>

Water Data Portal: <https://nt.gov.au/environment/water/water-in-the-nt/water-data-portal>

Bureau of Meteorology rainfall outlook:

<http://www.bom.gov.au/climate/outlooks/#/rainfall/median/weekly/0>

Bureau of Meteorology climate drivers: <http://www.bom.gov.au/climate/enso/>

## Contact us

If you have any enquiries about this update, please contact Water Resources on 08 8999 4455 or by emailing [WaterResources.DLPE@nt.gov.au](mailto:WaterResources.DLPE@nt.gov.au)